Usability Evaluation and Recommendation of User Interface Design for E-HAC Application by Using User Centered Design Method

Salsabilla Rinaldi[1], Arfive Gandhi, MTI[2], Nungki Selviandro,Ph.D.[3]

[1,2,3]Faculty of Informatics, Telkom University, Bandung
[1] salsabillarinaldi @students.telkomuniversity.ac.id, [2] arfivegandhi@telkomuniversity.ac.id, [3] nselviandro @telkomuniversity.ac.id

Abstract
Regarding the rapid spread of Covid-19 in Indonesia, the Ministry of Health of Indonesia has developed an e-HAC (Electronic – Health Alert Card) application to reduce the risk. That mobile application has a purpose to detect, prevent, and control public health emergencies through point of entries. Besides, the users of the e-HAC application have trouble on using the application. The issues are specifically on navigation between the menus, and the lack of aesthetics and appealing of user interface. Those issues lead to the main purpose of this research, which is to upgrade the interface design of e-HAC application to a suitable User Interface by using User-Centered Design (UCD) method. There are also specific objectives: first is to conduct usability testing in form of questionnaires and interview two times: one is a pre-survey, to evaluate the problems of the e-HAC application based on user experience; and the another one is a post-survey, to find out whether the upgraded design that has been made can ease the users to access the e-HAC application. Then, the second specific objective is to implement the System Usability Scale (SUS) method for measuring the system usability based on questionnaires. After the implementation of the UCD method, the researcher re-surveyed and obtained a test scores of SUS, from 53.87 previously to, 85.12. That means the acceptability ranges that were originally Low changed to Acceptable. Moreover, for the Grade Scale, which was originally D into category B.

Keywords: Covid-19, User-centered Design, User Interface, Usability testing, System Usability Scale